CN-Question Bank

1) Define different types of Network Topologies.

2) Explain about WAN, LAN, MAN in detail.

1) With a neat schematic explain the OSI layers model in computer networks.

2) Explain the frequency division multiplexing with a suitable example

1) Compare various sliding window protocols of data link layer.

2) Describe and discuss the data link layer design issues.

1) Explain the working of stop- and- wait flow control protocol. ?

2) Calculate the CRC checksum for the following frame and generator

Frame: 1101011011and Generator: x4+x+1

1) What is meant by vulnerable period? Show that the vulnerable time period of

slotted ALOHA is half of the pure ALOHA?

2) Describe the working principle of Carrier sense multiple access with collision

Detection (CSMA/CD).

1) What is pure ALOHA and slotted ALOHA? Mention the advantages of slotted

ALOHA.

2) Discuss the assumptions for dynamic channel allocation.

1) Compare Virtual circuit and Datagram subnets.

2) What is routing and explain various routing algorithms.

1) With neat sketch, explain virtual circuit switching.

2) In a CIDR notation the IP address is 167.199.170.82/27. Find the number of addresses in the network, the first address and the last address.

1) Discuss connection establishment mechanisms in

transport layer.
2) Define UDP and discuss the different fields of the format of a used datagram
1) What is World Wide Web? Explain details about HTTP
2) Describe importance of DNS in application layer.
1) What is Open Systems Interconnect (OSI) reference model? What are the
principles used in defining the OSI layers. ?
2) Explain different network topologies with neat diagrams.
1) Explain TCP/IP reference model and compare it with OSI-ISO model.
2) What is meant by multiplexing? Describe different types of multiplexing.
1) Explain Error Control mechanism used at data link layer.
2) Explain Go-Back- N ARQ protocol using Selective Repeat.
1) Explain Sliding window protocols at data link layer in detail.
2) Calculate the polynomial checksum for the following frame and generator Frame: 1101011011and Generator: x3 + x + 1.
1) Discuss about CSMA/CD protocol and its basic functions.
2) What are the draw backs of stop and wait protocol and how can they overcome by sliding window protocol.
1) Explain IEEE 802.3 protocol and its frame format.
2) What is ALOHA? Compare different ALOHA protocols.
1) With an example explain the shortest path routing algorithms used in computer networks.
2) In a CIDR notation the IP address is 187.19.57.82/27.

Find the number of addresses in the network, the first address and the last address.
1) What are the differences between Static Routing Algorithm and Dynamic Routing Algorithm?
2) Explain Distance Vector routing algorithm with an example.
1) Give the format of the UDP segment and TCP segment and compare the two protocols.
2) Discuss the importance of Transport layer in computer networks.
1) Define FTP. Discuss in brief about FTP.
2) Discuss in detail about the connection establishment and release in TCP.
1) What is Open Systems Interconnect (OSI) reference model? What are the principles used in defining the OSI layers.
2) Explain different type of networks and network topologies.
1) Explain TCP/IP reference model and compare it with OSI-ISO. ?
2) What is meant by multiplexing? Describe different types of multiplexing.
1) Explain Error Correcting and Error Detecting mechanisms.
2) Explain Go-Back- N ARQ protocol using Selective Repeat.
1) Explain Sliding window protocols in detail.
2) Calculate the polynomial checksum for the following frame and generator Frame: 11010011and Generator: x3 + x + 1.
1) Discuss about CSMA/CD protocol and its basic functions.
2) What are the draw backs of stop and wait protocol? How can they overcome by sliding window protocol?
1) Explain IEEE 802.3 protocol and its frame format

2) What is ALOHA? Compare different ALOHA protocols.
1) With an example explain the shortest path routing algorithms used in computer networks.
2) What are the general principles of congestion control? Explain.
1) In a CIDR notation the IP address is 167.199.170.82/24. Find the number of addresses in the network, the first address and the last address.
2) Explain Distance Vector routing algorithm with an example.
1) Give the format of the UDP segment and TCP segment? Explain when UDP is preferred to TCP.
2) Compare and contrast TCP over UDP.
1) Define FTP. Discuss in brief about FTP.
2) Discuss in detail about the connection establishment and release in TCP.
1) Discuss in brief about TCP/IP protocol Suite.
2) Write about the twisted pair cables used in computer networks.
1) Describe the various Transmission Media. What are the advantages of optical fiber media.
2) Give brief description about the co-axial cables and also mention their
Disadvantages.

1) Explain in detail about the sliding window protocol using Selective Repeat.
2) Explain in detail about the sliding window protocol using Go-Back-N.
1) Explain flow control mechanism using Sliding window protocol.
2) What are the different types of error detection methods? Explain the CRC error detection technique using generator polynomial x 4+x3+1 and data 11100011.

1) Discuss in brief the MAC frame structure for IEEE 802.3.
2) Discuss Collision Free protocols in MAC Sublayer.
1) What are common Ethernet implementations? Discuss about the MAC sub layer?
2) Briefly explain the problems in wireless LAN.

1) Illustrate Routing of Packets within Virtual Circuit Subnet.
2) Explain the Dijkstra寰洯 Shortest Path Routing Algorithm with an example.
1) In a CIDR notation the IP address is 167.199.170.82/24. Find the number of addresses in the network, the network address and the broadcast address.
2) What is the difference between broad casting and multicasting.

1) Explain the error and flow control in Transport Layer.
2) Explain UDP Internet Transport Protocol.
1) Explain the structure of TCP Header format.
2) What is the significance of DNS.
1) Discuss in brief about TCP/IP protocol Suite.
2) Compare and contrast various transmission media used in computer networks.
1) What are the advantages of optical fiber cable media over twisted pair cable.
2) What are the various types of networks, compare and contrast various topologies used in computer networks.

1) Explain in detail about the sliding window protocol using Selective Repeat.
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using Go-Back-N.
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1) Illustrate Routing of Packets within Virtual Circuit Subnet.
2) Explain the Dijkstra寰冴 Shortest Path Routing Algorithm with an example.
1) Write about various classes of IPV4 addresses and also about CIDR.
2) What is the difference between broad casting and multicasting?

1) Explain the error and flow control in Transport Layer
2) Explain UDP Internet Transport Protocol.
1) Explain the structure of TCP Header format.
2) What is the significance of UDP and its advantages over TCP.